

# Work Order ID 59786

Friday, June 11, 2010 12:02:57 PM



Page 1

Item ID: D3874-1

Accept



Setup Start



Revision ID:

Item Name: Floor Protector

Stop



Start Date: 6/10/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 6/18/2010 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

*AP*

Date:

*10-6-11*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3874

Rev A

100

0.00



HandThermo

Memo

0.00

Hand Finishing Thermoforming

I-Cut Sheet to required Blank size

*(X4) BB 10/06/15*

105

0.00



HandThermo

Dry Material

Memo

0.00

Hand Finishing Thermoforming

Dry Sheet as per QSI022 POLYCARBONATE

Temp:

*240°F BB*

Time IN:

*4:30 BB 10/06/14*

Time OUT:

*7:00 am BH 10/06/15*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                                |                                 |                |                           |                       |                          |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action<br>Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng           | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

**Work Order ID 59786**

Friday, June 11, 2010 12:02:57 PM



Page 2

Item ID: D3874-1

Accept



Setup Start



Revision ID:

Item Name: Floor Protector

Stop



Start Date: 6/10/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 6/18/2010 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



| Sequence ID/<br>Work Center ID | Operation<br>Description  | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp   |
|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|------------------|
| 110<br><br>Thermoform          | Memo<br>1-Machine Set-Up<br>2-Pre-heat Tool to required temp.<br>3-Thermoform as per Dwg and Folio #FTA038 using tool DT9455<br>Dwg Rev: _____<br>Folio Rev: <u>A</u> | 0.00<br>0.00         |         |        |              |               |               |                  | (14) 3B 12/06/15 |
| Thermoforming Machine          |   |                      |         |        |              |               |               |                  |                  |
| 120<br><br>QC                  | QC2- Inspect parts off machine FAI/FAIB   | 0.00                 |         |        |              |               |               |                  | (14) 3B 12/06/15 |
| Quality Control                | Memo<br>Visually inspect part for proper formation and texture  | 0.00                 |         |        |              |               |               |                  |                  |
| 130<br><br>QC                  | QC8- Inspect parts - second check   | 0.00                 |         |        |              |               |               |                  | 84 10/06/22      |
| Quality Control                | Memo  | 0.00                 |         |        |              |               |               |                  |                  |

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

Friday, June 11, 2010 12:02:57 PM



**Accept**



**Setup Start**

**Stop**

**Cust Item ID:**

**Customer:**

**Reference:**

Run Start

**Stop**

**Insp.  
Stamp**

0.00



HandThermo

## Memo

0.00

### Hand Finishing Thermoforming

1-Trim to finished dimensions as per Dwg

QC2- Inspect parts off machine FAI/FAIB

0.00

[illegible]

QC

## Memo

0.00

## Quality Control

Complete FAI document

QC5- Inspect part completeness to step on W/O

0.00

**RESEARCH DESIGN**

QC

## Memo

0.00

## Quality Control

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

**Work Order ID 59786**

Friday, June 11, 2010 12:02:57 PM

Page 4

Item ID: D3874-1

Accept



Setup Start



Revision ID:

Item Name: Floor Protector

Stop



Start Date: 6/10/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 6/18/2010 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

170

Identify as per dwg &amp; Stock Location: \_\_\_\_\_

0.00



Packaging

Memo

0.00

Packaging

10-6-23 *[Signature]*

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/06/23 *[Signature]*

U 10-06-23

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

Friday, June 11, 2010 12:03:12 PM

Page 1

Work Order ID: 59786



Parent Item: D3874-1



Parent Item Name: Floor Protector

Start Date: 6/10/2010

Required Date: 6/18/2010

Comments: IPP Rev A 09.02.06 New Issue DL  
Add Step 105 Dry Material 10/04/21 DL

IPP Rev B

Start Qty: 4.00

Required Qty: 4.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| MLEXS.118-90318-08              |                        | Purchased     | No          |                     |                  | 100             | sf                 | 2,598.510      | 4.38        | 17.52        |               |                |        |



Lexan Sheet

Location

Loc Qty

Loc Code

therm

2598.51

2598.51

113127

84 BB 10/06/14

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries


|  |  |                     |         |
|--|--|---------------------|---------|
| <b>DART AEROSPACE LTD</b>                  |  | <b>Work Order:</b>  | 59786   |
| <b>Description:</b> Floor Protector        |  | <b>Part Number:</b> | D3874-1 |
| <b>Inspection Dwg:</b> D3874 <b>Rev:</b> A |  | <b>Page 1 of 1</b>  |         |

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article      ☐ Prototype



### THERMOFORMING SECTION



| Description   | Accept | Reject | Method of Inspection | Comments |
|---|--------|--------|----------------------|----------|
| Inside Radii less than _____"                                   | ✓      |        |                      |          |
| Shape Definition  | ✓      |        |                      |          |
| Texture Retention   | ✓      |        |                      |          |
| Material imperfections such as bumps, cracks, voids, scratching | ✓      |        |                      |          |
|   |        |        |                      |          |
|   |        |        |                      |          |
|   |        |        |                      |          |
|   |        |        |                      |          |

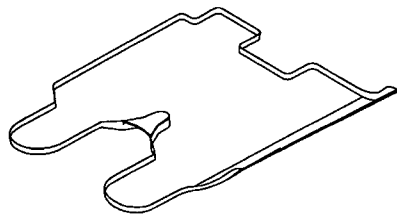
|   |                       |
|---|-----------------------|
| <b>Measured by:</b>  | <b>Date:</b> 10/06/21 |
|---|-----------------------|

### TRIMMING SECTION

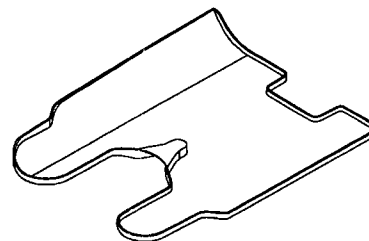
| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------|-----------|------------------|--------|--------|----------------------|----------|
| 0.050             | Min       | .101             |        |        |                      |          |
| 0.065             | Min       | .084             |        |        |                      |          |
| 0.5               | Min       | .56              |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |

|   |                       |
|---|-----------------------|
| <b>Measured by:</b>  | <b>Date:</b> 10/06/21 |
| <b>Audited by:</b>   | <b>Date:</b> 10/06/21 |
| <b>Prototype Approval:</b> N/A  | <b>Date:</b> N/A      |

| Rev | Date     | Change    | Revised by   | Approved  |
|-----|----------|-----------|--|---|
| A   | 09.09.15 | New Issue | KJ  |  |



**D3874-1 FLOOR PROTECTOR**



**D3874-2 FLOOR PROTECTOR**

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 59784  
B810-6-11

**RELEASED**  
*2/10/2011*

|            |  |   |  |    |  |          |              |  |  |
|------------|--|---|--|----|--|----------|--------------|--|--|
| A          |  | NEW ISSUE   |  | PH |  | 09.01.29 |              |  |  |
| REV.       |  | DESCRIPTION                                       |  |    | BY   |          | DATE         |  |  |
| DESIGN     |  | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |  |    |  |          |              |  |  |
| DRAWN      |  |   |  |    |  |          |              |  |  |
| CHECKED    |  | DRAWING NO.                                       |  |    |  |          | REV. A       |  |  |
| MFG. APPR. |  | D3874   |  |    |  |          | SHEET 1 OF 3 |  |  |
| APPROVED   |  | TITLE   |  |    |  |          | SCALE        |  |  |
| DE APPR.   |  | FLOOR PROTECTOR                                   |  |    |  |          | NTS          |  |  |
| DATE       |  | COPYRIGHT © 2009 BY DART AEROSPACE LTD            |  |    | THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. |          |              |  |  |
| 09.01.29   |  |   |  |    |  |          |              |  |  |

8 7 6 5 4 3 2 1

D

C

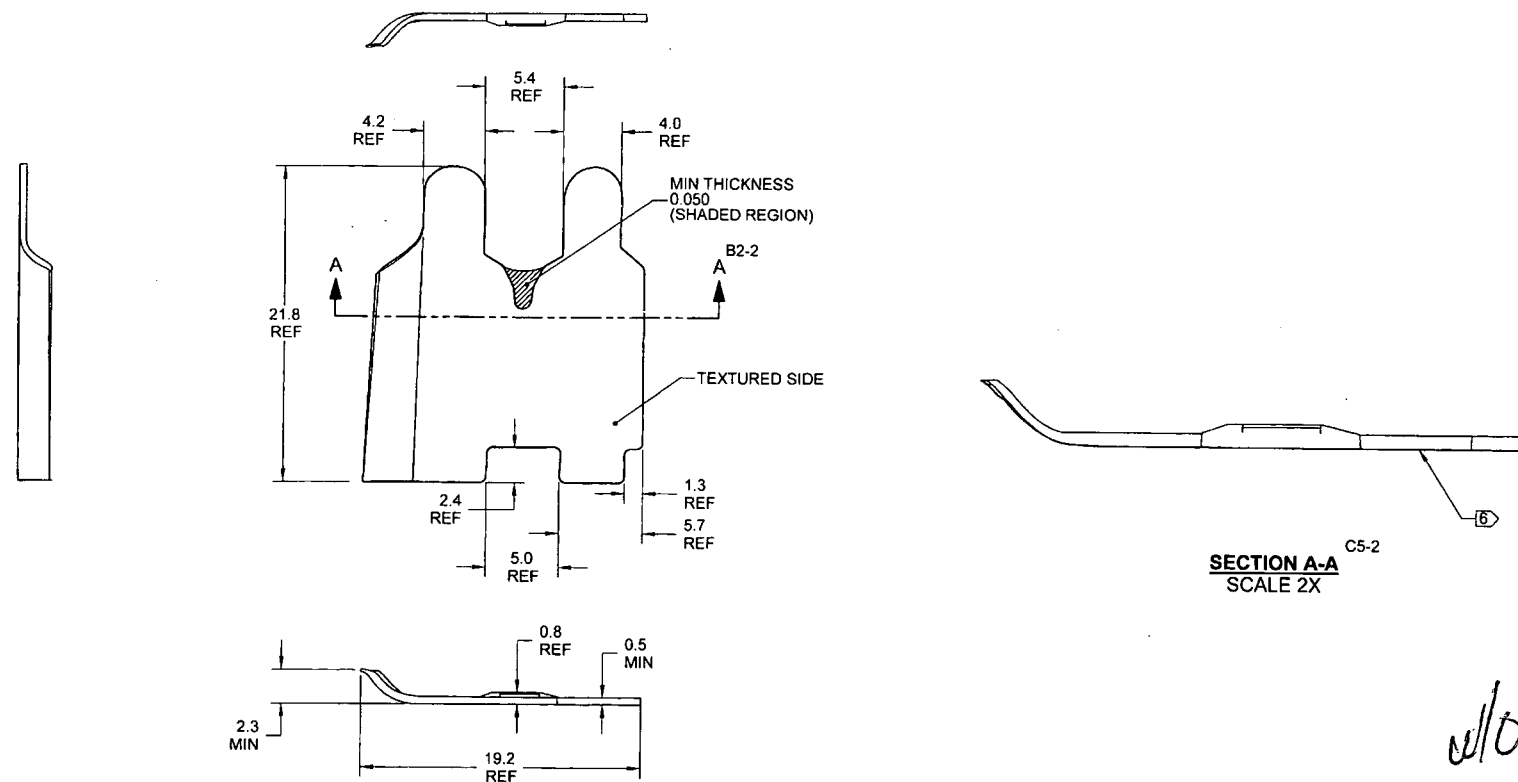
B

A

D

C

A



SECTION A-A  
SCALE 2X

**D3874-1 FLOOR PROTECTOR**

**NOTES:**

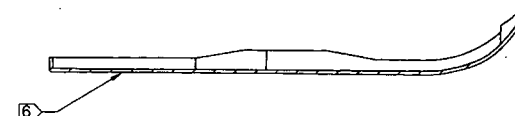
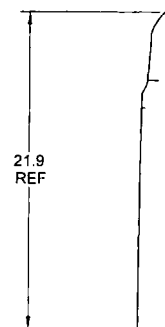
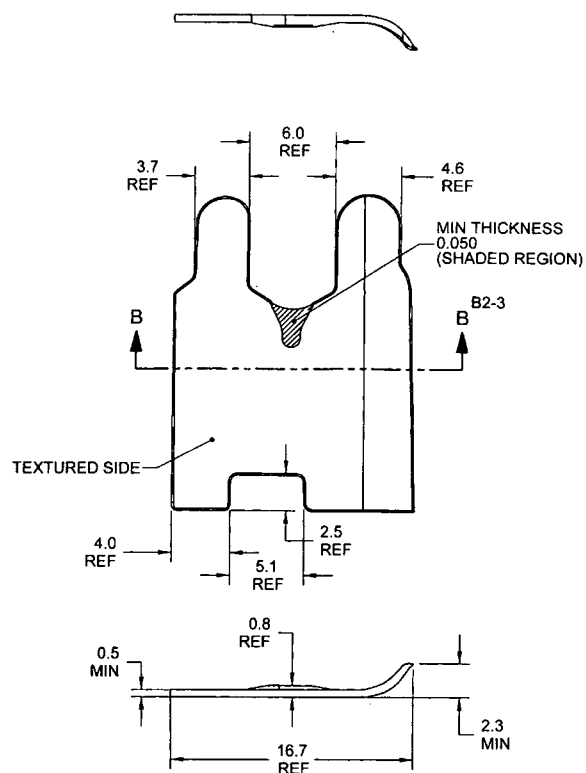
- 1) MATERIAL: LEXAN 90318 (PROTECT-A-GLAZE), 0.118 THICK, 112-CLEAR (MLEXS.118-90318-08)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3874-1" USING VIBRATING STYLUS
- 7) WEIGHT: 1.5 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9474 PER DART QSI 022. TRIM PER MOLD
- 9) MINIMUM THICKNESS: 0.050" ON FLANGES AND 0.065" ELSEWHERE EXCEPT AS SHOWN

**RELEASED**  
9/15/05

W/O 59784

|  |          |  |              |
|--|----------|--|--------------|
| DESIGN   | PH       | <b>DART AEROSPACE LTD</b>              |              |
| DRAWN  | PH       | HAWKESBURY, ONTARIO, CANADA            |              |
| CHECKED  |          | DRAWING NO.                            | REV. A       |
| MFG. APPR.   |          | D3874                                  | SHEET 2 OF 3 |
| APPROVED   |          | TITLE                                  | SCALE        |
| DE APPR.   |          | FLOOR PROTECTOR                        | NTS          |
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8 7 6 5 4 3 2 1









SECTION B-B  
SCALE 2X

# **D3874-2 FLOOR PROTECTOR**

## **NOTES:**

- 1) MATERIAL: LEXAN 90318 (PROTECT-A-GLAZE), 0.118 THICK, 112-CLEAR (MLEXS.118-90318-08)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3874-2" USING VIBRATING STYLUS
- 7) WEIGHT: 1.5 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9474 PER DART QSI 022. TRIM PER MOLD
- 9) MINIMUM THICKNESS: 0.050" ON FLANGES AND 0.055" ELSEWHERE EXCEPT AS SHOWN

|            |   |  |   |              |
|------------|---|--|---|--------------|
| DESIGN     |  | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA |   |              |
| DRAWN      |  |  |   |              |
| CHECKED    |  |  | DRAWING NO.   | REV. A       |
| MFG. APPR. |  |  | D3874   | SHEET 3 OF 3 |
| APPROVED   |  |  | TITLE   | SCALE        |
| DE APPR.   |  |  | FLOOR PROTECTOR   | NTS          |
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RELEASED  
21/05/09

WLO 59786